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Religion, Science, and Rationality

By RODNEY STARK, LAURENCE R. IANNACONE, AND ROGER FINKE*

A fundamental debate has surfaced within the social-scientific study of religion. Though fueled by new, economic models of religious behavior, the debate finds its origins in a growing body of empirical findings. These findings challenge the received wisdom that religious beliefs and behavior are grounded in primitive, pre-scientific, and non-rational thinking.

The distorting force of the received wisdom is underscored by the body of “stylized facts” that it has spawned. For example: (1) religion must inevitably decline as science and technology advance; (2) individuals become less religious and more skeptical of faith-based claims as they acquire more education, particularly more familiarity with science; and (3) membership in deviant religions is usually the consequence of indoctrination (leading to aberrant values) or abnormal psychology (due to trauma, neurosis, or unmet needs). Nearly all educated people “know” these statements to be true, even though decades of research have proved them *false* (Stark and Bainbridge 1985, Hadden 1987, Greeley 1989).

Our review of traditional claims and contemporary data leads us to conclude that standard social-scientific theories of religious behavior have accorded unwarranted status to the assumption of nonrationality. The view of religion as *nonrational*, not to mention *irrational*, emerged from a 19th century scholarly tradition largely devoid of empirical support and tainted by prejudice, ignorance, and antireligious sentiment. Taken for granted, the standard view has hobbled religious research, promoted public misconceptions, and distorted law and politics (particularly the legal decisions and political fears concerning “cults” and “fundamentalists”).

I. The Primitive-Mind Tradition

David Hume and other 18th century European philosophers were among the first to attribute religion to primitive thinking processes and to thereby declare its inevitable decline and ultimate doom in the modern world. By the time this claim was fully-developed in Auguste Comte's ([1830-42] 1896) *The Positive Philosophy* (whereby Comte attempted to found sociology), it represented a virtual consensus among European intellectuals. Tracing the course of cultural evolution, Comte described the most primitive stage as the “theological” or religious

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stage. During this stage human culture is held in thrall by “hallucinations ... at the mercy of the passions” (1896 II, p. 554). As individuals and societies acquired a more rational understanding of the world, religion would be displaced, initially by philosophy, but ultimately by science, particularly sociology, “the queen of all sciences.”

The scholars of the 19th and early-20th century who repeatedly linked religion to the uninformed and irrational thought processes of “primitive” peoples shared a thinly veiled agenda.¹ They were, in the words of Jeffrey Hadden (1987, p. 590), members of a new “order [that] was at war with the old order” dominated by Europe's Catholic Church. “The founding generation of sociologists were hardly value-free armchair scholars, sitting back and objectively analyzing these developments. They believed passionately that science was ushering in a new era which would crush the superstitions and oppressive structures which the Church had promoted for so many centuries. Indeed, they were all essentially in agreement that traditional forms of religion would soon be a thing of the past” (Hadden 1987, p. 590).

According to E. E. Evans-Pritchard (1965, p. 15), the primitive mind proponents were “agnostics or atheists ... [who] sought, and found, in primitive religions a weapon which could, they thought, be used with deadly effect against Christianity. If primitive religion could be explained away as an intellectual aberration, as a mirage induced by emotional stress, or by its social function, it was implied that the higher religions could be discredited and disposed of in the same way... Religious belief was to these anthropologists absurd”¹

The “primitive mind” was, however, doomed once scholars actually began doing field work. For it is a fact that none of its prominent social scientific proponents ever had met a member of a primitive culture. *All* of their information came from the library, from written reports by various travellers. The source material used by Comte, Spencer, Frazier, Lévy-Bruhl, and Durkheim was incorrect, extremely misleading, and often simply fabricated (Evans-Pritchard, 1965, p. 6). When trained anthropologists such as Malinowski came face-to-face with the objects of their study, the primitive mind tradition collapsed under irresistible contrary evidence -- so much so that no subsequent generation of anthropologists has attributed “primitive” thought to ancient or aboriginal peoples.

II. Religion as Irrational-Choice

The death of the primitive mind thesis did not, however, kill the complementary view of religion as a throwback to pre-scientific times (Evans-Pritchard, 1965). On the contrary, anthropology has remained a bastion of anti-religious sentiment throughout this century. Writing in a popular undergraduate textbook, the distinguished anthropologist Anthony F.C. Wallace (1966, p. 264-265) pronounced the death of the gods: “the evolutionary future of religion is extinction. Belief in supernatural beings and in supernatural forces that affect nature without obeying nature's laws will erode and become only an interesting historical memory. ... [A]s a cultural trait, belief in supernatural powers is doomed to die out, all over the world, as a result of the increasing adequacy and diffusion of scientific knowledge...the process is inevitable.”

Twentieth century sociologists have also stressed the irrationality of religious faith. See, for example, Kingsley Davis' (1949, p. 509-10) introductory text which describes the “rationalistic

¹ Readers may write the authors for a longer version of this paper which reviews similar statements by many of the most influential sociologists, anthropologists, and psychologists of the 19th and early-20th century.

approach” to religion as a major fallacy (because “religious behavior is nonrational”). Other sociologists, following Marx, continue to view religion as a tool of exploitation, “the opiate of the masses.”

Many psychologists maintain Freud's (1927, p. 88) diagnosis of religion as “neurosis,” “illusion,” “poison,” “intoxicant,” and “childishness to be overcome.” Thus the psychologist Mortimer Ostow (1990) recently claimed that Evangelical Protestants are unable to accommodate “the realities of modern life” (p. 100). Like Freud, Ostow attributes their behavior to immaturity: “... the fundamentalist is also regressing to the state of mind of the child who resists differentiation from its mother. The messiah and the group itself represent the returning mother” (p. 113).

Diagnoses of religion as psychopathology have not been limited to Freudians; clinicians of many persuasions express similar views (Ellis 1980, p. 637), as have anthropologists. Weston La Barre (1972, p. 19) confidently explained that “A god is only a shaman's dream about his father.” The various mind control and brainwashing theories of conversion so popular in the press are but vulgar versions of the psychopathology premise. Since it is “self-evident” that no informed, rational person would *choose* to join an unusual religious group, converts must have been coerced, hypnotized, or otherwise robbed of reason.

III. Pathological Personalities?

Despite an immense body of writings and the enormous weight of learned opinion that sustained it, the irrationalist position has fallen upon hard times, beset by contrary evidence. “Brainwashing” theories have been so thoroughly debunked that the American Psychological Association, the American Sociological Association, and the Society for the Scientific Study of Religion (together with numerous individual scholars) have filed *amicus curiae* briefs in three appeals court cases overturning cult/brainwashing decisions (Richardson 1991, p. 58).

In a study based on a sample of persons diagnosed as in need of immediate psychotherapy and a matched sample of the population, Stark (1971) found that those diagnosed as ill were far less likely to attend church or to score high on an index of religious orthodoxy. He also reported that the published empirical research offered no support for the claim the more religious people are prone to authoritarianism.

Subsequently, in a survey of all published, empirical studies Bergin (1983) found that most reported a positive, rather than a negative, relationship between religiosity and mental health. The few studies that did report a negative association between religion and mental health were tautological, having employed religious items as measures of poor mental health! Christopher Ellison (1993) has assembled an imposing empirical literature that strongly supports the conclusion that religious belief and practice improve self-esteem, life satisfaction, and the ability to withstand major social stressors, while actually improving physical health.

IV. Religion and Science

Ultimately, the alleged deficiencies of religious belief and behavior derive from the presumed limitations of religion itself -- specifically, its pre-scientific, un-scientific, and anti-scientific character. A fundamental incompatibility between scientific and religious “world-views” is usually taken for granted. But the empirical literature on the topic is surprisingly unsupportive (Wuthnow, 1985).

The consequences of true incompatibility are not hard to imagine. Indeed, they are widely

touted, and include: (1) a decline in religion as the fruits of scientific progress grow and spread; (2) lower levels of religious belief and practice among people with higher levels of education, (3) especially low levels among those actually engaged in scientific activities; and (4) within the academic community, lower levels within the “hard” (physical) sciences than within the “soft” (social) sciences and humanities.

Surprisingly, all these predictions fail. First, American rates of religious belief and participation have remained remarkably stable for more than fifty years (the entire period for which survey data exist) despite a tremendous increase in average educational levels, revolutionary growth in technology, and explosive increase in both the stock of scientific knowledge and the fraction of the population engaged in scientific research (Greeley 1989). In fact, when measured by church membership, the rate of participation has actually increased over the past two centuries (Finke and Stark 1992). Second, in survey after survey, the correlation between educational attainment and most measures of religiosity is positive, not negative. Third, although surveys do show that scientists, professors, and graduate students are less religious than the overall population, the estimated differences are small, on the order of a few percentage points. Moreover, longitudinal data show that this difference does not arise during scientific training, but rather predates entry into college and graduate school (Wuthnow 1985, p. 191). Fourth, it is clear that both faculty and students in the “hard” sciences are on average *more* religious, not less, than their “soft” science and humanities counterparts.

For more on this last point, we turn to an old but underutilized survey – the 1969 Carnegie Commission survey of more than 60,000 American college professors. The survey included several questions concerning religion. Table 1 summarizes the responses to these questions across faculty fields.² Note that by every measure, faculty in the “hard” sciences turn out to be more religious than their “soft” science counterparts: they more frequently describe themselves as “religious,” attend church more regularly, and are less likely to oppose religion. (Though not reported here, they also are more likely to have a religious affiliation and to describe themselves as religiously conservative.) Even after controlling for age, race, gender, and religious upbringing (in logistic regressions, available upon request) these differences remain very large.

Table 1 also summarizes the social sciences by specific fields. Here we see an additional feature, not previously noted in the literature. It is above all faculty in psychology and anthropology who stand as towers of unbelief. The other social sciences remain relatively irreligious, but these two fields -- the two most closely associated with theories of the “primitive” and “religious” mind -- are true outliers. Compared to faculty in the physical sciences, psychologists and anthropologists are almost *twice* as likely to be irreligious, to never attend church, or to have no religion. One in five actually declare themselves “opposed” to religion. The differences are of such magnitude that one can scarcely imagine their not influencing the tone of conversation, instruction, and research in these two fields. Indeed, these data suggest to us why rational choice theories of religion evoke widespread skepticism, if not outright hostility among most social scientists.

² Our tables omit the professional fields, such as medicine, law, engineering, and education. Within the academic fields we have excluded three areas that contain a high percentage of people directly involved in the “production” of religion -- professors of “religion and theology,” “music” and “counseling psychology”. However, given the relatively small number of faculty in these areas, including them does not significantly change the overall statistics and tabulations.

TABLE 1 – RELIGIOUSNESS BY SCHOLARLY FIELD

Field	Percentages		
	Is Religious	Attends Regularly	Opposes Religion
Math-statistics	60%	47%	11%
Physical Sciences	55%	43%	11%
Life Sciences	55%	42%	11%
Social Sciences	45%	31%	13%
Economics	50%	38%	10%
Political Science	51%	32%	10%
Sociology	49%	38%	12%
Psychology	33%	20%	21%
Anthropology	29%	15%	19%

Notes: Data are from the Carnegie Commission's 1969 Survey of American Academics.

What are we to make of these results? Some reviewers have told us that anthropologists and psychologists are irreligious because only they give much attention to religion (whereas physical scientists remain ignorant of its contradictions). But this *ex post* rationalization ignores the fact that biologists and physicists routinely address religiously charged questions about human evolution and the origin of the universe. It also ignores the fact that traditional claims concerning the “incompatibility” of science and religion and predictions of science's contribution to religion's inevitable demise have *always* been framed in terms of physical science discoveries that expose the fallacies of religious superstitions and technological progress that reduces the appeal of religious promises. We are inclined to side with Robert Wuthnow (1985, p. 197), a noted sociologist of religion, who argues that the social sciences lean toward irreligion precisely because they are “the *least scientific* disciplines.” Their semi-religious reliance on nontestable claims puts them in direct competition with traditional religions.

V. Conclusion

For most of its history, the *scientific* study of religion was nothing of the sort. Despite the immense antagonism expressed towards “faith,” the field itself rested almost entirely on faith. To be sure, this faith consisted of secular doctrines, but it remained faith insofar as scholars clung to the doctrine of secularization, religious irrationality, and the incompatibility of science and religion despite strong evidence to the contrary.

As we see it, economists have avoided the study of religion and other social scientists have

failed to appreciate religion's rational/economic characteristics largely because the social sciences failed to approach religion as they did other phenomenon. For many leading scholars, religion was not so much a phenomenon to be explained as it was an *enemy* to be overcome. Starting with the assumption that religion is false, and thus less rational than other behaviors, these scholars employed unique theoretical principles to explain (and dismiss) it and, above all, to pronounce its inevitable demise.

In a world of continuing religious commitment and conflict, and in a country where religious institutions remain vital despite decades of unprecedented growth in incomes, education, and technology, it is high time that social scientists move beyond the old theories of religious behavior and motivation. Doing so not only frees the study of religion from intellectual baggage that is outmoded, unproductive, and embarrassingly prejudiced; it also opens the door to new theories and predictions grounded upon standard social-scientific assumptions, most notably the standard economic assumptions of maximizing behavior, stable preferences, and market equilibrium. Though we do not deny that personal upbringing, social interactions, and cultural values play a major role in shaping individual religious behavior, we remain confident that the economic framework provides the best context in which to incorporate these constraints, model religious behavior, and measure religion's effects.

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